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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,745	07/07/2003	Sanjiv M. Bhatt	2267.664US02	6177

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PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A.
4800 IDS CENTER
80 SOUTH 8TH STREET
MINNEAPOLIS, MN 55402-2100

EXAMINER

CASTELLANO, STEPHEN J

ART UNIT

PAPER NUMBER

3727

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No.	Applicant(s)	
	10/614,745	BHATT, SANJIV M.	
	Examiner	Art Unit	
	Stephen J. Castellano	3727	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claims 4 and 9-38 have been canceled. Claims 1-3 and 5-8 remain for treatment according to their merits.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosoi in view of Gregerson et al. (Gregerson).

Hosoi discloses a sealable wafer carrier comprising an enclosure portion (case 1) and a door (inner FIMS door 6 and outer door 13). The door has a latching mechanism (15, 16, 18-20). The enclosure material is polycarbonate (stated in col. 3, lines 36-39) and the door material is PEEK (specification states that outer door 13 may be PEEK in col. 4, lines 17-20). Hosoi discloses the invention except for the enclosure's kinematic coupling, the door's wafer cushion, door seal and that the door material of polycarbonate predominates. Gregerson teaches a kinematic coupling 40, wafer cushion 92, and a gasket to seal the door to the door frame of the enclosure as taught in the specification at col. 5, line 57 – col. 6, line 6. It would have been obvious to add a kinematic coupling to provide easier handling and transport of the carrier. It would have been obvious to add the wafer cushion to hold the wafers in place to minimize or eliminate damage to wafers and the interior surfaces of the enclosure and door. It would have been obvious to add the gasket to seal the carrier and keep contaminants from entering the carrier and soiling the wafers.

Figures 1, 6 and 7 show the inner door 6, as shown in cross section of Fig. 7 the inner door appears to be of double wall thickness with a space between the layers for the latching

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mechanism. Although the outer door 13 has larger enveloping dimensions, there may be more inner door material than outer door material because of the double thickness of the inner door 6. It would have been obvious through the principles of economics and engineering optimization to increase the thickness of both layers of the inner door for increased strength and increased protection of the latching mechanism while at the same time decreasing the thickness of the outer door made of PEEK to reduce the cost of providing a less readily available and relatively expensive plastic material when compared to polycarbonate. This increase in the thickness of the polycarbonate material and the decrease in the thickness of the PEEK material would result in the polycarbonate material being the substantial or predominate material of the door.

Re claim 5, the door includes both the inner door (FIMS door 6) and the outer door (13). The interior surface of inner door is polycarbonate while the exterior surface of the outer door is PEEK.

Re claims 6-8, Official notice is taken that the molded layer of fire retardant material on the exterior surface of the door as in claim 6, the application of an exterior fire retardant layer by adhesive as in claim 7 and the affixing of an exterior fire retardant layer by mechanical fasteners as in claim 8 are well known. It would have been obvious to add an exterior layer by any of these means to incorporate a fire retardant exterior surface to a door as the method of attachment lacks criticality.

Applicant has challenged the Official notice taken. Avery, Jr. (5069358) discloses a media case with outer outer layer for preventing fire with water bearing material 56 and an inner layer. Kress (2002/0194796) discloses a door with molded layers, inner layer R1, intermediate

layers R2-R6 and outer layer R7. Hauser et al. (2003/0009976) discloses a door with adhesively attached layers. Rivera et al. (6047925) discloses a door with mechanically fastened layers.

Claims 1, 2 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosoi in view of Gregerson as applied to claim 1 above, and further in view of the prior art admission contained in the specification page 11, lines 10-17 and the admission contained in applicant's remarks in the response filed June 16, 2006 at page 6, last paragraph, second sentence.

This rejection is applied to claim 1 insofar as it could be argued that the FPI is not within the claimed range.

The Hosoi and Gregerson combination are applied as previously stated. The combination fails to disclose polyether imide (PEI) outer door exterior surface material. The specification states that polyether imide (PEI) is a known plastic acceptable for use in wafer carriers, it also states that PEI is a preferred material having a FPI between 8.1 – 8.6 and ULTEM 1000 made by GE Plastics is a known example of this PEI material. It would have been obvious to substitute PEI for the PEEK outer door material to provide the FPI fire resistance with a commercially and readily available material.

Claims 5-8 are explained as above.

Applicant's arguments filed June 16, 2006 have been fully considered but they are not persuasive. The rejections have been repeated with minor adjustments. The added language pertaining to the predominance of polycarbonate material in the door has been addressed by a motivational statement stating the obviousness of the predominance of polycarbonate. Applicant traverses the Official notice. The examiner has provided evidence of the obviousness of these statements. Applicant's traversal of the prior art admission is not persuasive since the examiner

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was misquoted as stating "known to be used on the outer surface of a wafer carrier." Applicant should reread the non-final action mailed February 16, 2006.

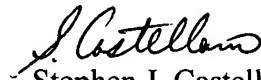
THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Castellano whose telephone number is 571-272-4535. The examiner can normally be reached on Tu-F 6:30-5.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Stephen J. Castellano
Primary Examiner
Art Unit 3727

sjc